PR-4

AN EFFICIENT SYNTHESIS OF POLYCYCLIC AROMATIC HYDROCARBON-CONTAINING COPOLYMERS

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Abstract. The derivatives of polycyclic aromatic hydrocarbon (PAH) display unique properties of fluorescence like excellent photostability,[1] lifetime of long fluorescence and including high quantum yield. Polycyclic aromatic hydrocarbon (PAH) could be used for organic light emitting iodes, biological fluorescent probe, press-sensitive materials etc.[2] In the polymer materials area, here PAH is established into the polymer to label macromolecular chains, modify carbon nanotubes[3] or improve polymer fluorescence as well. In this work we are glad to inform an efficient approach for the synthesis of few PAH (such as pyrene, anthracene and naphthalene) containing copolymers based on acrylic acid. First, for the synthesis of starting vinyl PAH, we have done vinylation of the PAH. Therefore, with respect to the starting vinyl PAH we used various proportion of acrylic acid.

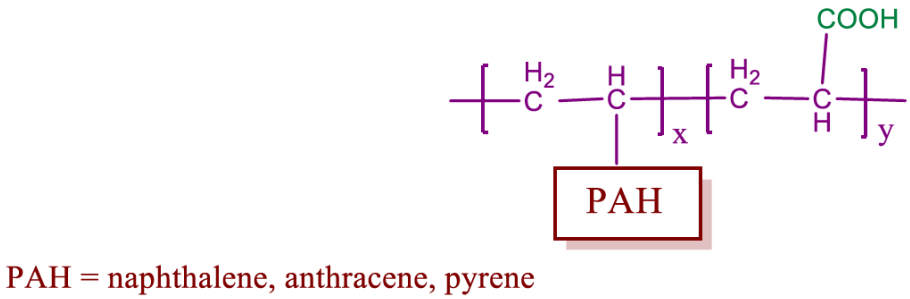

Figure 1. PAH containing synthesized polymers.

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